



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBE1120-31502W1-5
Job Sheet 185465



Part No: RBE1120-31502W1-5

Job Qty: 8 ea

Part Name: Bushing 1



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/26/18

Job Tracking No:

Due Date: 11/9/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBE1120-31502W1 Rev.1 IPP Rev. A 18.10.25 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	5 Ea		11/9/18	0.00	0.00	Start Up Machining-2		JB 18.12.12
110	CNC Lathe	5 pcs		11/9/18	0.00	1.25	MORI SL-154		JB 18.12.12
120	QC	5 pcs		11/9/18	0.00	0.00	QC2 Machining-4		JB 18.12.12
130	QC	5 pcs		11/9/18	0.00	0.00	QC8 Machining-4		JB 18.12.12
150	Outsource	5 pcs		11/9/18	0.00	0.00	Outsource12		JB 18.12.12
160	Packaging	5 pcs		11/9/18	0.00	0.00	Packaging2		DEC 21 2018
170	QC	5 pcs		11/9/18	0.00	0.00	QC6		DEC 24 2018
180	Packaging	5 pcs		11/9/18	0.00	0.00	Packaging3-1		DEC 24 2018
190	QC21-SA	5 Ea		11/9/18	0.00	0.00	QC21		18.12.27

Part Op 110 - 1-Machine as per DWG. FC _____ FOLIO REV: _____ DWG REV: _____ 2-Deburr
Descriptions: 150 - -Issue P/O to GROUPE ALTECH; PO 042058 -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-C-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; O1 -Certificate of Conformity is required

GA133

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-O1-R1.000	Tool Steel Round Bar 1.000 dia.	.3200 ft (.064 ea)	90-Start up Operation	5044113

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-O1-R1.000	0	5	0

Part Specifications

not be found.

Plex 10/26/18 1:53 PM Dart.lajeunesse.marie



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S137489



Part: RBE1120-31502W1-5

Job No: 185465

Serial No/Batch: S137489

Revision: 1

Inspector:

Exp Date:

Instructions:

Date: 12/12/18

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: •

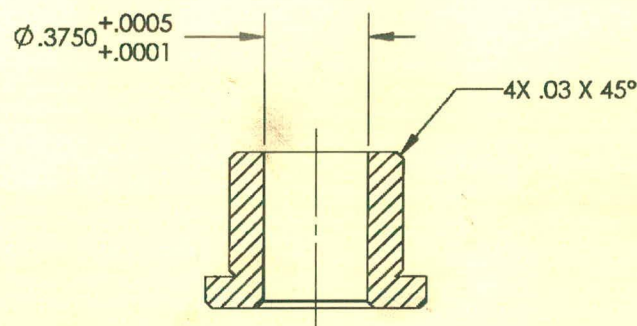
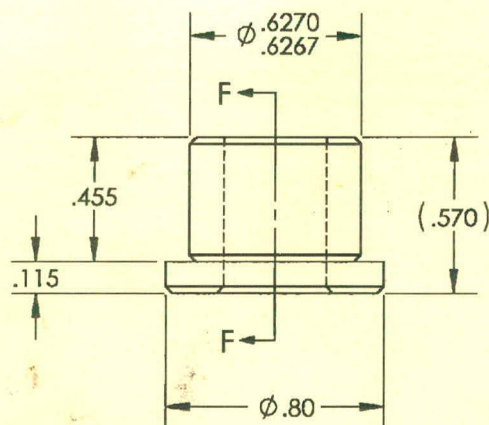
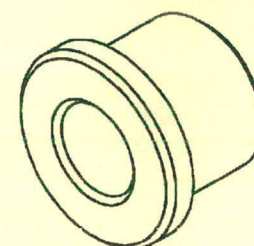
Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																						
Large Fab ☐	Composite ☐	Supplier ☐																																																																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																																		
Description Work Order Deviation				Disposition				Completed By																																																																	
								Lead hand / Supervisor Approval Verification																																																																	
								QC / QA Coordinator Approval																																																																	
Root Cause				FAULT CATEGORY																																																																					
<table style="width: 100%; border: none;"> <tr><td>Environment ☐</td><td>No Re-verification ☐</td></tr> <tr><td>Design ☐</td><td>Operator ☐</td></tr> <tr><td>Doc/Data ☐</td><td>Offset/Setup ☐</td></tr> <tr><td>Equip/Tooling ☐</td><td>Supplier ☐</td></tr> <tr><td>Handling/Pre ☐</td><td>Training ☐</td></tr> <tr><td>Material ☐</td><td>Use for Testing ☐</td></tr> <tr><td>Internal Transport ☐</td><td>Poor Information ☐</td></tr> <tr><td>Tribal Knowledge ☐</td><td>Rushing ☐</td></tr> <tr><td>LOA ☐</td><td>Product Improvement ☐</td></tr> <tr><td>Substation ☐</td><td>Process Improvement ☐</td></tr> <tr><td>Past Expiry Date ☐</td><td>Manufacturing Process ☐</td></tr> <tr><td>Misidentified ☐</td><td>Past Due ☐</td></tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	<table style="width: 100%; border: none;"> <tr><td>Pressure/Forced ☐</td></tr> <tr><td>Bending ☐</td></tr> <tr><td>Centre Not Concentric ☐</td></tr> <tr><td>Cracks ☐</td></tr> <tr><td>Crimp/Kink/Ripple/Wave ☐</td></tr> <tr><td>Cuffs ☐</td></tr> <tr><td>Crushing ☐</td></tr> <tr><td>Heat Treat ☐</td></tr> <tr><td>Wave/Twist in Tube ☐</td></tr> <tr><td>Marks/Chatter ☐</td></tr> </table>		Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	<table style="width: 100%; border: none;"> <tr><td>Temperature/Cure ☐</td></tr> <tr><td>Set-up ☐</td></tr> <tr><td>BOM/Route ☐</td></tr> <tr><td>Broken/Damage/Defect ☐</td></tr> <tr><td>Inspection Incomplete/Unqualified ☐</td></tr> <tr><td>Contamination ☐</td></tr> <tr><td>Countersink ☐</td></tr> <tr><td>Cut Too Short ☐</td></tr> <tr><td>Instructions Incomplete/Unclear ☐</td></tr> <tr><td>Drill Holes ☐</td></tr> </table>		Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	<table style="width: 100%; border: none;"> <tr><td>Power Loss/Surge ☐</td></tr> <tr><td>Folio/Program ☐</td></tr> <tr><td>Grain ☐</td></tr> <tr><td>Weld ☐</td></tr> <tr><td>Wrong Stock Pulled ☐</td></tr> <tr><td>Out of Sequence ☐</td></tr> <tr><td>Off-set ☐</td></tr> <tr><td>Mislabeled ☐</td></tr> <tr><td>Fit/Function ☐</td></tr> <tr><td>Misaligned/off center ☐</td></tr> </table>		Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	<table style="width: 100%; border: none;"> <tr><td>Positioned Wrong ☐</td></tr> <tr><td>Outside Dimensions ☐</td></tr> <tr><td>Over/Under tolerance ☐</td></tr> <tr><td>Part Incorrect ☐</td></tr> <tr><td>Part Lost/Missing ☐</td></tr> <tr><td>Part Moved ☐</td></tr> <tr><td>Drawing ☐</td></tr> <tr><td>Finish ☐</td></tr> <tr><td>Misread ☐</td></tr> <tr><td>Turning Sequence ☐</td></tr> </table>		Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																								
Design ☐	Operator ☐																																																																								
Doc/Data ☐	Offset/Setup ☐																																																																								
Equip/Tooling ☐	Supplier ☐																																																																								
Handling/Pre ☐	Training ☐																																																																								
Material ☐	Use for Testing ☐																																																																								
Internal Transport ☐	Poor Information ☐																																																																								
Tribal Knowledge ☐	Rushing ☐																																																																								
LOA ☐	Product Improvement ☐																																																																								
Substation ☐	Process Improvement ☐																																																																								
Past Expiry Date ☐	Manufacturing Process ☐																																																																								
Misidentified ☐	Past Due ☐																																																																								
Pressure/Forced ☐																																																																									
Bending ☐																																																																									
Centre Not Concentric ☐																																																																									
Cracks ☐																																																																									
Crimp/Kink/Ripple/Wave ☐																																																																									
Cuffs ☐																																																																									
Crushing ☐																																																																									
Heat Treat ☐																																																																									
Wave/Twist in Tube ☐																																																																									
Marks/Chatter ☐																																																																									
Temperature/Cure ☐																																																																									
Set-up ☐																																																																									
BOM/Route ☐																																																																									
Broken/Damage/Defect ☐																																																																									
Inspection Incomplete/Unqualified ☐																																																																									
Contamination ☐																																																																									
Countersink ☐																																																																									
Cut Too Short ☐																																																																									
Instructions Incomplete/Unclear ☐																																																																									
Drill Holes ☐																																																																									
Power Loss/Surge ☐																																																																									
Folio/Program ☐																																																																									
Grain ☐																																																																									
Weld ☐																																																																									
Wrong Stock Pulled ☐																																																																									
Out of Sequence ☐																																																																									
Off-set ☐																																																																									
Mislabeled ☐																																																																									
Fit/Function ☐																																																																									
Misaligned/off center ☐																																																																									
Positioned Wrong ☐																																																																									
Outside Dimensions ☐																																																																									
Over/Under tolerance ☐																																																																									
Part Incorrect ☐																																																																									
Part Lost/Missing ☐																																																																									
Part Moved ☐																																																																									
Drawing ☐																																																																									
Finish ☐																																																																									
Misread ☐																																																																									
Turning Sequence ☐																																																																									
OTHER :																																																																									

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

x5



SECTION F-F

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 185465 MLC
18-10-20

(5)

BUSHING 1

DART AEROSPACE	
TITLE: PRESS IN/PUSH OUT DEVICE	
DWG NO. RBE1120-31502W1-5	REV 1
MTL: 01 HEAT TREAT: BLACK OXIDE FINISH: BLACK OXIDE SPEC: QMSI-6.2.2, B.O. REV D	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125/	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: [Signature] CHECKED: [Signature] OPSS APPR: [Signature] QA APPR: [Signature] APPROVED: [Signature]	
USED ON MODEL EC145, EC645	
SCALE 3:2	DATE 09/12/2016 SHEET 4 OF 6

5/1

240
88
88-0

240
88
88-0



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO042058**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO042058
PO Date: 12/17/18
Due Date: 12/21/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 60
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	185466	RBE1120-31502W1-7	Bushing 2 -Issue P/O to GROUPE ALTECH; PO -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; O1 -Certificate of Conformity is required	Firmed	-	12/21/18	6 pcs	0 pcs	6 pcs	\$6.66667/pcs	\$40.00
2	185465	RBE1120-31502W1-5	Bushing 1 -Issue P/O to GROUPE ALTECH; PO -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; O1 -Certificate of Conformity is required	Firmed	-	12/21/18	8 pcs	0 pcs	8 pcs	\$6.666666670/pcs	\$53.33



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO042058**

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	185111	RBE117-68021W1	Socket Wrench -Issue P/O to GROUPE ALTECH; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type; 4140 -Certificate of Conformity is required	Firmed	-	12/21/18	4 pcs	0 pcs	4 pcs	\$6.66667/pcs	\$26.67
Grand Total:											\$120.00

Order Notes

Procurement Quality Clauses
 A005 right of entry
 A012 chemical and physical test report
 A016 personnel qualification
 A017 raw material identification (as applicable)

A022 Apical Processing
 A024 process certifications
 A026 certification of material conformance

A041 quality management system
 A042 dart notification by supplier
 A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/17/18 1:17 PM dart.tsimiklis.chrisoula



Certificat de Conformité / Certificate of Compliance

(015457-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

015457 - 1

Livré à / Ship to

DART AEROSPACE LTD

1270 ABERDEEN STREET

HAWKESBURY, ON, K6A1K7

CANADA

Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD

1270 ABERDEEN STREET

HAWKESBURY, ON, K6A1K7

CANADA

BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
20-Dec-2018		Aman		042058				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	RBE1120-31502W1-7 Rev.	RBE1120-31502W1-7 01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL] MIL-C-13924C CLASS1 APPLY THIN LAYER OF OIL MIL-PRF-16173 GRADE 3 CLASS 1 WIPE OFF EXCESS OIL	OXIDE-BLACK CH	6	6	0	0	0
2	RBE1120-31502W1-5 Rev.	RBE1120-31502W1-5 01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL] MIL-C-13924C CLASS1 APPLY THIN LAYER OF OIL MIL-PRF-16173 GRADE 3 CLASS 1 WIPE OFF EXCESS OIL	OXIDE-BLACK CH	8	8	0	0	0
3	RBE117-68021W1 Rev.	RBE117-68021W1 01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL] MIL-C-13924C CLASS1 APPLY THIN LAYER OF OIL MIL-PRF-16173 GRADE 3 CLASS 1 WIPE OFF EXCESS OIL	OXIDE-BLACK CH	4	4	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.

